

REMARKS

Applicant's counsel thanks the Examiner for the careful consideration given the application. Applicant's counsel also thanks SPE Cynthia Kelly for the very courteous personal interview conducted on November 17, 2003. During the interview it was agreed that independent claims 1 and 6 would be amended as they have now been amended. It was also agreed that applicant would submit the Declaration which is attached hereto and it was also agreed that applicant could submit a Supplemental Information Disclosure Statement and Form 1449, which is now being submitted herewith.

Regarding the claims, claims 1 and 6 have been amended as was agreed to during the personal interview. In preparing this Amendment, applicant's counsel reviewed the dependent claims and noticed that several of them have to be amended for clerical and formal reasons. Claims 2 and 13 have been cancelled since the subject matter of those claims is now found in independent claims 1 and 6 respectively. Claims 4, 8, 9, and 15 have been amended to delete "preferable" language. Claims 7 and 10 have been amended to change the dependency, since claim 2 has been cancelled.

In the Office action of July 15, the claims were rejected over Buck in view of Lu et al. and further in view of JP 11115391 to Sangyo (abstract). As was discussed during the interview, Lu does show aluminum, among other particulates which provide pigmentation. However, Lu treats titanium dioxide, calcium carbonate and aluminum as interchangeable (or perhaps even treats aluminum as inferior to titanium dioxide and calcium carbonate). However, the attached Declaration of Mr. Blom clarifies that, as an opacifying agent, titanium dioxide, calcium carbonate and/or zinc oxide are not interchangeable with aluminum powder. Mr. Blom's Declaration states at Paragraphs 6 and 7 as follows.

"6. Surprisingly and unexpectedly, when aluminum powder is included in the opaque layer described in the patent application at a weight percent of 0.1 to 5 weight percent, calculated on the basis of the opaque layer, the opacity of the opaque layer is surprisingly and unexpectedly improved as described in the above-referenced U.S. Patent Application Serial No. 10/069,263. As described in the Examples on pages 6-7 of the patent application, even if a maximum amount of a conventional white pigment such as TiO₂ is used, the underlying printing could be visually noticed through the opaque layer. Surprisingly and unexpectedly, when a small amount of aluminum powder (0.6 weight percent), based on the weight of the opaque layer, was added to the pigment, the label was completely opaque and the existing printing could not be visually noticed through the opaque layer. These results were dramatic, surprising, and unexpected.

7. It is clear that, as an opacifying agent, titanium dioxide, calcium carbonate and/or zinc oxide are not interchangeable with aluminum powder. These four opacifying agents do not provide interchangeable results; when aluminum powder is added in small amounts to a pigment, such as one of titanium dioxide, calcium carbonate and zinc oxide, the results are surprisingly and unexpectedly better than when any of the other three is used. This is clear from the examples set forth above. Using any of titanium dioxide, calcium carbonate and/or zinc oxide in an opacifying layer will not effectively mask the underlying printing, while the addition of a small amount of aluminum powder (0.1-5 weight percent) to a pigment, such as titanium dioxide, calcium carbonate or zinc oxide, will effectively mask the underlying printing."

From the foregoing, it can be seen that aluminum powder is not interchangeable with conventional opacifying agents such as titanium dioxide and calcium carbonate. In fact, the use of aluminum powder in combination with the pigment in the opaque layer provides dramatic, surprising and unexpected results as set forth in Mr. Blom's Declaration above.

The Lu reference also teaches away from applicant's weight percent of 0.1 to 5 wt. % when it states at col. 4 lines 53-57 that "Typically the opacifying particulates and/or pigment concentration ranges from about 5% to about 70% of the total particulate concentration of the coating, specifically about 10% to about 45% of the total particulate concentration of the coating." Obviously the weight percent of the present invention (0.1 to 5 wt. %) is pretty much the exact opposite of the weight percents mentioned above. In fact, it is critical to applicant's invention to keep the weight percent at 0.1 to 5 and not to go above 5, since unacceptable effects are encountered at higher weight percents. In this regard, the Blom Declaration states as follows in Paragraph 7.

"It is also important that the weight percent of aluminum powder added to the opaque layer not be greater than 5 weight percent. When the aluminum powder is added at a weight percent greater than 5 weight percent, the color of the opaque layer is negatively and unacceptably affected; a white opaque layer will become unacceptably gray and a colored opaque layer will also become unacceptably grayish. A second problem with greater than 5 weight percent aluminum powder is that if the label is removable, the label has less integrity; the image layer will tend to delaminate from the opaque layer. When the removable label is removed in a washing procedure, the image layer will tend to separate from the opaque layer, resulting in the release of a number of thin pieces of image layer unattached to opaque layer, rather than image layer attached to the opaque layer. The result will be more pieces and thinner pieces of released material which are harder to remove from the wash water. Surprisingly and unexpectedly, these problems are avoided or minimized when the present invention is utilized."

From the foregoing, the criticality of applicant's 0.1 to 5 wt. % limitation can now be seen. Obviously, Lu does not recognize this criticality, since it teaches pretty much the exact opposite weight percent, that being about 5% to about 70%, specifically about 10% to about 45%.

From all the foregoing, the criticality of applicant's 0.1 to 5 wt. % limitation has now been explained, and it has also been established that dramatic, surprising and unexpected results are obtained when the small amount of aluminum powder is added to the opaque layer as described above. Regarding the Sangyo reference JP 11115391, applicant does not necessarily agree or disagree with the Examiner's interpretation of that reference. Applicant's position on Sangyo is that this reference teaches adding aluminum powder to the image layer and not to the opaque layer. It is clear from reading Sangyo that they want to obtain bright colors and gloss in the image layer and that they include aluminum powder to achieve this effect. Sangyo does not at all describe adding aluminum powder to an opaque layer underlying an image layer. Since Sangyo adds aluminum powder to the image layer and not to the opaque layer, applicant's claims as presently set forth clearly define over Sangyo by including aluminum powder in the opaque layer, which Sangyo neither teaches nor suggests. Even if it is considered that Sangyo teaches adding aluminum powder to the opaque layer, it is being added at weight percents well above the 0.1 to 5 wt. % of the present claims, and accordingly the Sangyo reference would be overcome because of the dramatic, surprising and unexpected results described in the Blom Declaration as set forth above.

During the personal interview it was agreed that the Declaration which has now been submitted would overcome the prior art of record and would place the present claims in condition for allowance. Accordingly, it is believed that the claims as they are now presented are in condition for allowance, which is respectfully requested.

In reviewing the file, applicant's counsel has noticed that the Form 1449 filed on February 22, 2002 has not yet been initialed and returned to applicant. Accordingly, applicant is enclosing herewith an extra copy of the above-mentioned Form PTO-1449 and requests that an initialed copy be returned with the next communication.

If any further fees are required by this communication, please charge such fees to our Deposit Account No. 16-0820, Order No. 34434.

Respectfully submitted,

PEARNE & GORDON LLP

By John P. Murtaugh
John P. Murtaugh, Reg. No. 34226

1801 East 9th Street
Suite 1200
Cleveland, Ohio 44114-3108
(216) 579-1700

Date: Dec. 12, 2003